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Abstract

The objective of the study is to examine the relationship between attachment style, personality traits, and career decision self-efficacy. T-test is used to compare the gender differences, while Pearson's Correlation is used to identify the relationship between the variables. A sample of 92 postgraduate students in the faculty of education at Universiti Putra Malaysia is involved in the study. three instruments were used: Career Decision Self-Efficacy Short Form (CDSE-SF), Relationship Scale Questionnaire (RSQ), and Big Five Inventory (BFI-44). The finding reported that there are no significant differences between males and females towards career decision self-efficacy, it refers to gender does not affect the level of CDSE. Furthermore. The results showed there was a significant relationship between secure attachment and career decision self-efficacy (r=.335, p=.000). A significant relationship is identified between the personality traits of Openness (r=.413, p=.000), Conscientiousness (r=.408, p=.000), and Neuroticism (r=-.311, p<.05). In conclusion, there is a significant relationship between some of the sub-scales from each variable in the present study.

Keywords: Attachment Style, Personality Traits, Career Decision, Self-Efficacy, Gender

Introduction

Career Decision Self-Efficacy (CDSE) refers to an individual's belief to make a significant career choice (Akhtar, 2008). One of the approaches of vocational choice theory is Social Cognitive Career Theory (SCCT) designed by Albert Bandura, with the main component of self-efficacy (Bolat & Odachi, 2016; Bandura et al., 2001). In the recent study carried out in

Malaysia with 2800 respondents from the age of 13 to 16 reported that 40% of students are low in career decision self-efficacy (Abidin et al., 2019). Bakar et al (2011) also reported that the CDSE among Malaysia technical students is in moderate level. Furthermore, Individual life satisfaction and harmonization are positively affected by career choice. (Nachiappan et al., 2018; Rashid et al., 2009). In other words, they might make the wrong career choice because of low self-efficacy and may lead to unsatisfied life.

One of the vital variables to identify the relationship with career decision self-efficacy in this study is attachment style. There is total two major group with four type of attachment style, such as secure, insecure-ambivalent, insecure-avoidant, and insecure-disorganized attachment style (Lyons-Ruth, 1996; Waring et al., 2019). Based on the recent study carried out with 1800 students with age between 13 to 17 years old, reported that 17.3% and 20.7% of the respondents have insecure attachment toward their father and mother respectively (Mohammadzadeh et al., 2019). Bowlby (1982) mentioned that the process of attachment pattern toward caregiver or parents did not limit to babyhood alone; however, it may extend into adulthood (Bowlby, 1982; Kaitz et al., 2010).

Third variables that involved in the study are personality traits. Personality is the collection of characteristics that affect their cognitions and behaviors in different contexts within an individual (Hussain et al., 2011). Although many factors influence career choice, personality traits are the most significant factor in the individual level of determinants (Mullola. et al., 2018). The five-factor model has an empirical validation and provides a taxonomic model of personality traits and characteristics (Goldberg, 1992). While Five-Factor Model consider as the predictor of career exploration behavior (Reed et al., 2004), which later will impact an individual's career choice. The five dimensions that include in the structure are Openness, conscientiousness, extraversion, Agreeableness, and Neuroticism (Goldberg, 1992); generally, the acronym of these five dimensions is OCEAN or CANOE.

Objectives
1. To determine the gender differences in career decision self-efficacy.
2. To identify the relationship between secure attachment style and insecure attachment style towards career decision self-efficacy among postgraduate students.
3. To identify the relationship between five personality traits and career decision self-efficacy among postgraduate students.

Hypothesis
Regarding the objective of the study the following hypothesis was proposed.

Ha1   There is a significant difference between gender in CDSE.
Ha2   There is a significant relationship between secure attachment style and CDSE.
Ha3   There is a significant relationship between insecure attachment style and CDSE.
Ha4   There is a significant relationship between openness personality traits and CDSE
Ha5   There is a significant relationship between conscientiousness personality traits and CDSE
Ha6   There is a significant relationship between extraversion personality traits and CDSE.
Ha7   There is significant relationship between agreeableness personality traits and CDSE
Ha8   There is a significant relationship between neuroticism personality traits and CDSE

Significant of The Study

This study contribute as much information as possible be utilized and used by the counselors, students and the parents too, regarding the issues of attachment style and personality traits in career decision making. This study is also expected to help counselors with the group of students by planning and conducting of the career program, which may help them to increase their self-confidence dan guide them to make a clear career decision. In addition, counselors can also disseminate career information that is suitable for students. As a counselor, the particular knowledge and relevant informations career is the the strong guidance to expose students to the occupational world. Hence, they may not choose the wrong career path or making the non-significant career decision. It is very important to have the updated knowledge on the updated occupations now days, so that counselors are always relevant to assistant for individual's career development.

Literature Review
Gender Differences in Career Decision Self-Efficacy

According to Abidin et al (2019) females are tended to more mature in making career decision than males students. Additionally, gender differences are said to be one of the variables that correlated with the career decision self-efficacy in few research (Abidin et al., 2019; Jiang, 2013; Choi et al., 2012). However, there is also study reported that gender do not have the significant relationship with CDSE (Baglama & Uzunboyl, 2007; Chung, 2002; Mau, 2000; Betz et al., 1996). In contrast, the study done in Taiwan reported that male had significant relationship with CDSE higher than female (Mau, 2000).

Attachment Style and Career Decision Self-Efficacy.

Attachment do not affect babyhood alone, but it creates lasting effects on adolescence and adulthood, and more stable across adolescence, it also affects the career choice process. (Wright et al., 2017; Bolat & Odaci, 2016; Chopik et al., 2014; Palos & Drobot, 2010). Several studies proved the significant correlation between CDSE and both attachment style of secure and insecure (Ryan et al., 1996; Wolfe & Betz, 2004).

From research results of Bolat & Odaci (2016) demonstrate a significant relationship between attachment style and CDSE with a correlation coefficient of secure attachment ($r=.11$, $p<.01$) and insecure-fearful attachment ($r=.12$, $p<.01$). However, there is no significant relationship between insecure preoccupied and dismissing attachment with CDSE (Bolat & Odaci, 2016). In contrast, Wolfe and Betz (2004) discover that CDSE was negatively related to the dismissive style, while fear of commitment was negatively associated with the fearful and preoccupied style. The relationship of attachment style and career decision self-efficacy is still controversial, where most of the past research finding are supported the significant relationship. However, most of the study are done in western nation.

Personality Trait and Career Decision Self-Efficacy

Hartman & Betz (2007) found out that the personality traits of five factor model (NEO-FFI) were significantly associated with CDSE in a research carry out at Ohio State University with 301 students. The result shows that conscientiousness, extraversion, and openness posted a positive correlation with CDSE. In contrast, Neuroticism was indicated to have a negative relationship with CDSE. While the Agreeableness trait has no significant relationship to career decision self-efficacy (Hartman & Betz, 2007).

Besides that, another study was carried out with 182 undergraduate psychology students at Mid-Atlantic University, US (Penn & Lent, 2019). The results show that Extraversion and Conscientiousness trait positively relates to CDSE, where the correlation result is .33 and .35. The neuroticism traits show a negative relationship with CDSE with a correlation result of -.25 (Penn & Lent, 2019). Additionally, research carried out at Northeastern University with 184 undergraduates' students reported the positive relationship of extraversion with CDSE, while the Neuroticism posted negative relationship with CDSE (Wang et al., 2006). In Beijing Universities, China research carried out with total 785 graduate student, the result present that the positive correlation exists between agreeableness trait with career decision self-efficacy (r=.16, p<.001) (Jin et al., 2009).

According to the past research review, a significant relationship exists between personality traits and career decision self-efficacy. However, there is also an argument on the substantial relationship between agreeableness trait and career decision self-efficacy. Furthermore, there is lack of studies carried out in Malaysia that focus on the correlation between personality traits and career decision self-efficacy.

Methodology
Research Design
Descriptive and correlation research design will be used in this study. Descriptive research aims to provide a systematic description of the facts and characteristics of a population accurately regarding the study field (Sidek, 2002). The purpose of the correlation study is to investigate the relationship between two or more variables based on the correlation coefficients (Sidek, 2002). Lastly, the study will be conducted with a quantitative research method.

Population and Sample Size
The determination of a reasonable sample size for the research is primarily related to the research design (Sidek, 2002). The target population is postgraduate students in the faculty of education, UPM. The number of postgraduate students in the faculty of education, UPM reported on 31 March 2021 is 1420. The information of population data provided by the Department of Graduate Studies and International.

Cohen's Statistical power analysis is used to calculate an adequate sampling size. To calculate the sampling size researcher, need to pre-determine the value for a significance level, effect size, power, estimated variance, and type if statistical used. The value of significant level is suggested to set at alpha .05 which is the most conventional level and commonly used in the field of education (Ary et al., 1996). While the desired power value is suggested to use .80 (Cohen, 1971 as cited in Sidek, 2002). For correlation study did not involve estimated variance. By referring the table 3.4.1 in Cohen Statistical Power Analysis, with an effect size of .30 (medium), a significant alpha of .05, and statistical power of .80, the desired sample size is 85.

Research Instruments
There is total four section and three instruments involved in the study. Section A is the demographic information, Section B is the Career Decision Self-Efficacy Short Form (CDSE-SF) Section C is Relationship Scale Questionnaire (RSQ) and Big Five Inventory (BFI).

Career Decision Self-Efficacy Short Form

CDSE-SF consists of 25 items for five sub-scales in CDSE-SF, which include Self-Appraisal, Occupational Information, Goal Selection, Planning, and problem-solving. The instrument using five-point Likert scale to measure the confidence level from 0 to 5 for each item. According to Betz et al (1996) the mean score interpretation is suggested where 1.00 to 2.33 as low CDSE, 2.34 to 3.66 as moderate CDSE and 3.67 to 5.00 as high CDSE level.

In Malaysia, research was carried out with 244 A-levels students from two different colleges in Kuala Lumpur and Selangor region of Malaysia was reported the coefficient of the total scales ranged from .89 to .94. (Lam & Santos, 2017). Research carried out by Betz et al (1996), the coefficient alpha value for the total item score is .94. Besides that, Hughes (2016) also reported high reliability for the scale with .95 Cronbach's alpha. The internal consistency of CDSE-SF from another study at Southern University with 165 undergraduate students was .93 for the whole sample (Chung, 2002). In the present study, the reliability of CDSE-SF is reported as .888α.

Relationship Scale Questionnaire

The second instrument used is RSQ consists of 30-items to assess several scoring methods, included Collins and Read (1990); Brennan et al (1998); Hazan and Shaver (1987) (as cited in Kurdek, 2002). Recently Khodarahimi et al (2016) conduct a factor analysis of RSQ to examine the psychometric. There is total two major group formed which is insecure and secure attachment and able to explain 61.25% of total variance (Khodarahimi et al., 2016). The study was conducted with 308 undergraduate students at a public university in Malaysia and reported that the RSQ's internal reliabilities were greater than .83 for all factors and .86 for total scale which indicated good reliability. For the current study, the analysis of RSQ will be based on the factors identified by Khodarahimi, Hashim & Mohd-Zaharim, the reliability is reported as .810α (good reliability).

Big Five Inventory (BFI)

The third instrument used is BFI consists of 44 items to measure five personality traits. Recently, a study related to the reliability and validity of BFI was carrying out in Malaysia by (Ong, 2014). The sampling of the study consists of 343 participants in a health tourism hospital. Based on the finding, the internal reliability for the subscales ranging from α =0.736 to α=0.904, and the reliability coefficient ranging from 0.716 to 0.779 (Ong, 2014). Another research done by Karaman, Dogan, and Cohan (2010) reported that the Cronbach Alpha for each sub-scale ranging from .75 to .86. In the present study the Cronbach alpha are .726α which indicate acceptable reliability.

Data Collection

The data collection mainly focuses on e-questionnaire, where the questionnaire distributes to the target group in the format of Google form. Before collecting the data, the researcher applied for permission and gather information about the population of the target group from the Graduate Studies and International department. Then the pilot test is carried out before the real data analysis. All the analysis is done with SPSS version 26.

Data Analysis

IBM Statistical Package for the Social Sciences (IBM SPSS) will be used in this study to analyze the data collection. In details, objective 1 with Ha1 will be analyze with T-test. Next,

Objective 2 with Ha2 and Ha3, and objective 3 with Ha4, Ha5, Ha6, Ha7 and Ha8 will be using Pearson's Correlation Statistics

Result
Objective 1: To Determine the Gender Differences in Career Decision Self-Efficacy.
From the SPSS analysis, the significant value for Lavene's test is .166 (larger than .05), thus, equal variances assumed should utilize in the findings. By referring to the T-test for equality of means the sig. (2-tailed) value is .934. As this value is above the required cut-off of .05, this indicates there is no difference in the mean career decision self-efficacy score for males and females. The mean difference between the two groups is shown in Table 4.1, along with the 95% confidence interval of the difference showing the lower value and upper value. Thus, the hypothesis 1 (Ha1) is rejected.

Table 4.1
The independent samples T-test of gender and career decision self-efficacy.

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	SD Difference	Lower	Upper
CDSE	Equal variances assumed	**1.947**	**.166**	**-.082**	**90**	**.934**	**-.258**	**3.133**	**-6.482**	**5.966**
	Equal variances not assumed			-.098	33.438	.922	-.258	2.633	-5.612	5.096

Objective 2: To Identify the Relationship Between Attachment Style and Career Decision Self-Efficacy Among Postgraduate Students.
The relationship between Career Decision Self-Efficacy (CDSE) and Relationship Scale Questionnaire (RSQ) is examined using Pearson Correlation, each of the sub-scales in RSQ is analyze. The result shows the sub-scales of secure attachment is a moderate positive significant relationship with CDSE where r=.335, n= 92, p<.05, it also refers CDSE level might increases when the secure attachment level increases. Thus, the hypothesis 2 (Ha2) is supported by the findings.

In contrast, insecure attachment in RSQ do not have a significant relationship with CDSE where r=-.098, n=92, p>.05. Based on the finding, hypothesis 3 (Ha3) is rejected as the finding shows no significant relationship which is contrast with the past research finding. The full scale of RSQ does not have a significant relationship with CDSE where r=-.052, n=92, p>.05. The summary of the Pearson Correlation (r) of the career decision self-efficacy is shown in Table 4.2.

Table 4.2
Pearson correlation of the career decision self-efficacy with Relationship Scale Questionnaire.

		CDSE-SF	RSQ	Secure Attachment	Insecure Attachment
CDSE-SF	Pearson Correlation	1.000	-.052	**.335****	-.098
	Sig (2-tailed)		.619	**.001**	.354
	N		92	**92**	92
RSQ	Pearson Correlation	-.052	1.000	.162	.974**
	Sig (2-tailed)	.619		.123	.000
	N	92		92	92
Secure Attachment	Pearson Correlation	**.335****	.162	1.000	-.021
	Sig (2-tailed)	**.001**	.123		.840
	N	**92**	92		92
Insecure Attachment	Pearson Correlation	-.098	.974**	-.021	1.000
	Sig (2-tailed)	.354	.000	.840	
	N	92	92	92	

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

Objective 3: To Identify the Relationship Between Personality Traits and Career Decision Self-Efficacy Among Postgraduate Students

There is a total of 5 subscales in the Big Five Inventory that indicates different personality traits. The personality of Openness, conscientiousness, neuroticism has a significant relationship with CDSE, while personality traits of extrovert and agreeableness did not have a significant relationship with CDSE. In details for Openness scales, the data analysis shows r=.413, p=.000 which refer to moderate positive and significant relationship with CDSE, thus, hypothesis 4 (Ha4) is accepted. Then, the Pearson Correlation of conscientiousness r=.408, p=.000 refers to a moderate positive significant relationship, thus, hypothesis 5 (Ha5) is accepted. Next, the neuroticism scale shows that r=-.311, p<.05, where the neuroticism traits showing a moderate negative significant relationship with CDSE, and it is supported Hypothesis 8 (Ha8).

In contrast, the extrovert scale and agreeableness scales got the Pearson relationship of r=.173, p>.05 and r=.158, p>.05, respectively. Thus, the hypothesis 6 and 7 (Ha6 and Ha7) is rejected as the findings show there is no significant relationship. Overall, the full scale of the Big Five Inventory shows a moderate positive significant relationship with CDSE, where r=.367, p<.05. The data analysis of CDSE and BFI is shown in Table 4.3.

Table 4.3

Pearson correlation of the career decision self-efficacy with Big Five Inventory

		1	2	3	4	5	6	7
CDSE	Pearson Correlation	1.000	.413**	.408**	.173	.158	-.311**	.367**
	Sig. (2-tailed)		**.000**	**.000**	.100	.134	**.003**	**.000**
Openness	Pearson Correlation	.413**	1.000	.391**	.134	.179	-.113	.606**
	Sig. (2-tailed)	.000		.000	.204	.089	.284	**.000**
Conscientiousness	Pearson Correlation	.408**	.391**	1.000	.216*	.228*	-.254*	.707**
	Sig. (2-tailed)	**.000**	.000		.039	.029	.015	**.000**
Extraversion	Pearson Correlation	.173	.134	.216*	1.000	-004	-.215*	.447**
	Sig. (2-tailed)	.100	.204	.039		.972	.039	.000
Agreeableness	Pearson Correlation	.158	.179	.228*	.004	1.000	-.354**	.412**
	Sig. (2-tailed)	.134	.089	.029	.972		.001	**.000**
Neuroticism	Pearson Correlation	-.311**	-.113	-254*	-215*	-.354**	1.000	.039
	Sig. (2-tailed)	.003	.284	.015	.039	.001		.713
BIG5	Pearson Correlation	.367**	.606**	.707**	.447**	.412**	.039	1.000
	Sig. (2-tailed)	**.003**	.000	.000	.000	.000	.713	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Discussion

Objective 1: To Determine the Gender Differences In CDSE.

There are few studies with contradictory findings, where the gender role is a significant factor for CDSE (Abidin et al., 2019; Choi et al., 2012). Besides that, Gianakos (2001) has reported that females perform higher scores than males. In contrast, the findings of the present study (t (92) = -.934), indicated that the CDSE level of postgraduate students does not show significant differences based on their gender. The result is supported by a few studies (Baglama & Uzunboyl, 2007; Chung, 2002; Betz et al., 1996), where in gender comparison, no significant differences were found in CDSE-SF. This also refer to gender (males and females) does not affect the development of CDSE towards an individual.

Objective 2: To Identify the Relationship Between Attachment Style And CDSE Among Postgraduate Students.

The results show there is a significant relationship between secure attachment with CDSE where r=.344, p<.05. The results are supported by Salami & Aremu (2007), where individual have secure attachments are more likely to have a high level of CDSE. Besides that in the research of Bolat & Odaci (2016) demonstrate a significant relationship for secure attachment style with CDSE, with the value of r=.11, p<.01which indicates a low correlation. In the present study, secure attachment is said to have a moderate positive relationship with CDSE. Thus, the findings also show that if an individual growth up with secure attachment style they tend to develop high level of CDSE.

In contrast, insecure attachment style demonstrated there is no significant relationship with CDSE where r=-.098, p>.05, in the present study. The result is in line with the study done by Bolat & Odaci (2016), there is no significant relationship between insecure preoccupied attachment and insecure dismissing attachment with CDSE. However, the study from Wolfe and Betz (2004) said that insecure attachment is negative associated with CDSE.

Objective 3: To Identify the Relationship Between Personality Traits and CDSE Among Postgraduate Students

In the present study, Openness and Conscientiousness posted a positive relationship while Neuroticism posted a negative relationship with CDSE. It also means that an individual who has dominant traits of Openness and Conscientiousness tends to have higher CDSE. For example, an individual who have the Openness characteristics are like to trying new things and focused on tackling new challenges tended to be more self-efficacious in making career decision.

Besides that, neuroticism is said to demonstrate a negative correlation with CDSE (Hartman & Betz, 2007; Penn & Lent, 2019; Wang et al., 2006), this supported the result in the present study. Based on the current findings, an individual having dominant personality traits of neuroticism tend to experience more stress, worries about many differences' things, or easily feel anxious which might develop the low level of CDSE.

A few studies prove that the personality traits of conscientiousness and extraversion showing a positive correlation with CDSE (Hartman & Betz, 2007; Penn & Lent, 2019; Wang et al., 2006). However, in the present study, there is no significant positive relationship between extraversion with CDSE. Besides, the researcher has found, that is no significant relationship between agreeableness traits with CDSE but in the study of Beijing, China the result posted a positive correlation between the two variables (Jin et al., 2009). In overall, personality traits showing the significant relationship (total scale r=.367, p<.05) with CDSE. The future study and analysis are needed to investigate the contribution of each personality traits towards CDSE.

Conclusion

The first objective is analyze using T-test, and reported there is no significant difference between males and females in CDSE level. For the second objective based on the findings, the secure attachment style is significantly related to CDSE while the insecure attachment style is not. The third objective the result shows that conscientiousness, extraversion, agreeableness, and neuroticism are significantly related to CDSE, while openness reported no significant relationship with CDSE.

The findings of the study are expected to contribute to career counseling. The career counselor is suggested to involve the personality traits in the assessment, the component that might affect the level of CDSE to have a holistic pre-concept and intervention, while by knowing the attachment style of client, counselor able to build up the therapeutic relationship. Besides that, the findings also create the awareness on importance of parental and early childhood education. Especially, the attachment style that build up during childhood and last to adulthood. Additionally, attachment style also brings a certain effect on personality traits, thus a correct parenting method contribute to the healthy attachment stye which later nurture the healthy personality traits.

Further in-depth research on the two influential factors which are attachment style and personality traits toward career-decision self-efficacy is recommended for future research such as to analyze the contribution of each factor towards the dependent variable.

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